

Amendments to the Claims:

1. (currently amended) A method for determining the molecular weight of polymers comprising the steps of: ~~preparing~~ spin coating a substrate with a polymer to prepare a thin layer of the polymer whose molecular weight is to be determined, determining the thickness of said layer by an ellipsometric method and calculating, with the thickness determined by said ellipsometric method, the molecular weight of the polymer material from a layer thickness - molecular weight correlation.

2. (currently amended) A method according to claim 1, wherein said thin polymer layer is prepared from a polymer solution on a substrate by a spin-coating process, ~~wherein the substrate is rotated.~~

3. (currently amended) A method according to claim 2 1, wherein, after determining the thickness of the polymer layer, the layer is removed from said substrate by the application of a solvent while said substrate is rotated.

4. (original) A method according to claim 3, wherein, after removal of the polymer layer from the substrate by said solvent, said substrate is continued to be rotated for a predetermined time.

5. (canceled)

6. (currently amended) An apparatus according to claim 5 7, wherein said ellipsometer has optical parts ~~(lenses)~~ provided with covers for protecting said ~~lenses~~ optical parts.

7. (currently amended) ~~An apparatus according to claim 5,~~  
~~wherein said~~ for determining the molecular weight of polymers  
comprising a support structure supporting a substrate, an ar-  
range ment for providing said on said substrate a thin polymer  
layer includes including means for supplying said polymer  
whose molecular weight is to be determined to said substrate  
and said substrate is supported by a support structure, which  
is rotatable about a vertical axis and which is rotated to  
subject the polymer solution supplied to said substrate to  
centrifugal forces for spreading said polymer solution on said  
substrate to form said thin polymer layer, and an ellipsometer  
disposed above said substrate for determining the thickness of  
said thin polymer layer disposed on said substrate.

8. (original) An apparatus according to claim 7, wherein  
said arrangement includes means for supplying a solvent to  
said substrate for dissolving said polymer on said substrate  
and removing it therefrom while said support structure with  
said substrate disposed thereon is rotated.

9. (currently amended) ~~An apparatus~~ A method according  
to claim 1, wherein, for determining the molecular weight of  
the polymer, the relationship used is

$$\text{Layer thickness } d \sim [\eta]^{1/3}$$

and  $[\eta] = KM^A$  (Staudinger equation)

wherein,

$[\eta]$  =intrinsic viscosity number

K = constant [volume/mass]

A = constant, and

M = molecular weight.

10. (original) A method according to claim 3, wherein said solvent is applied for 5 - 10 seconds.